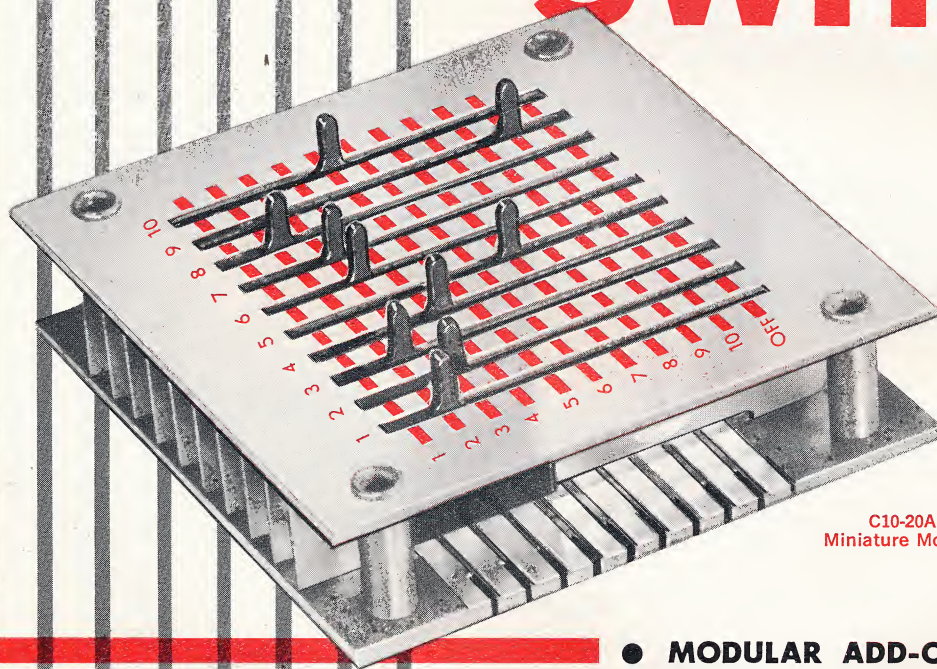


crossbar-type **SELECTOR SWITCHES**



C10-20A
Miniature Module

- MODULAR ADD-ON DESIGN
- MULTIPLE SWITCHING COMBINATIONS
- SIMPLE CIRCUIT SELECTION
- POSITIVE POSITION DETENT

Cherry Electrical Products Corporation



HIGHLAND PARK, ILLINOIS

A MODERN DESIGN CONCEPT

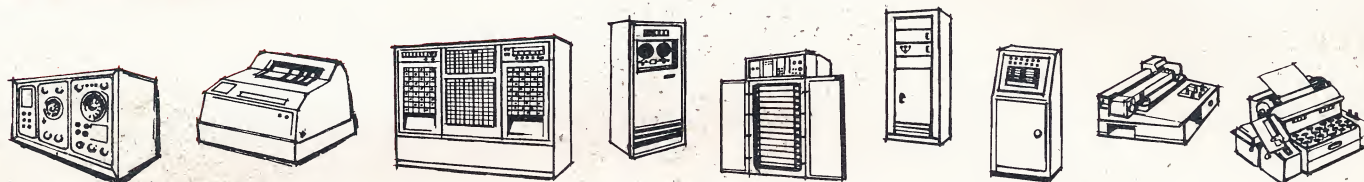
to meet MODERN SWITCHING requirements

Cherry Selector Switches are simple in design and fool proof in operation. The switch employs rhodium plated printed circuit strips, transverse slider rails with indexing sliders to permit cross point contacting, anodized aluminum face plate with numbered coordinates and black nylon selector knobs that house the sliding beryllium contacts. All this in a compact package with good visual array.

Cherry Selector Switches permit rapid circuit selection while eliminating the need for soldering, clips, pins or cumbersome connecting wires.

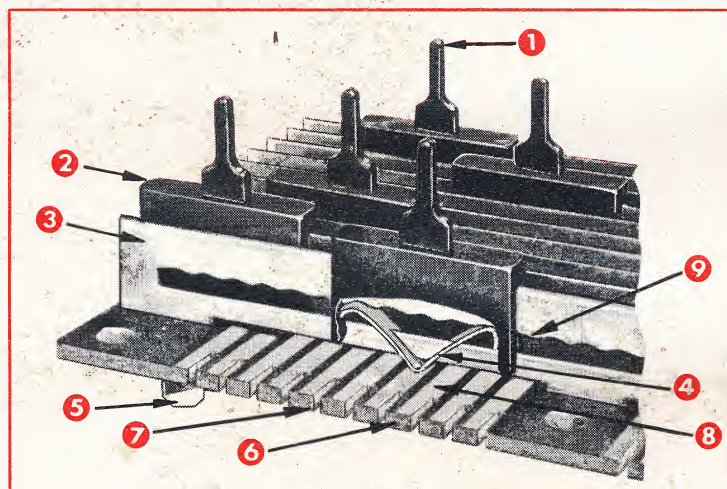
Modified designs of single miniature and double basic types provide complete interconnectability between all "x" and "y" circuits and off positions by means of printed circuitry on both sides of base.

APPLICATIONS . . .



Cherry Selector Switches are ideally suited for a variety of applications such as . . . communications . . . computer data entry panels . . . machine tool control and programming . . . tape machine track selector in telemetry data . . . circuit design and testing . . . setting up logic circuits . . . electronic control devices . . . programmed item and price selection.

CONSTRUCTION DETAILS . . .



1. Black nylon selector knob.
2. One piece housing for sliding contact-indexing spring.
3. Dual purpose slider rails (indexing and current carrying).
4. Beryllium copper sliding contact (indexing spring).
5. Standard Quick Connect terminals $\frac{1}{4}$ " wide x .032 thick (Mates with AMP Part No. 41772).
6. Circuit board.
7. Standard edge connector receptacle (Mates with AMP Part No. 42588-1).
8. Rhodium plated printed circuit strip.
9. Slider rail waveform for positive position detent.

CROSSTALK . . .

Crosstalk limits should be readily derived from capacitance values shown in the chart.

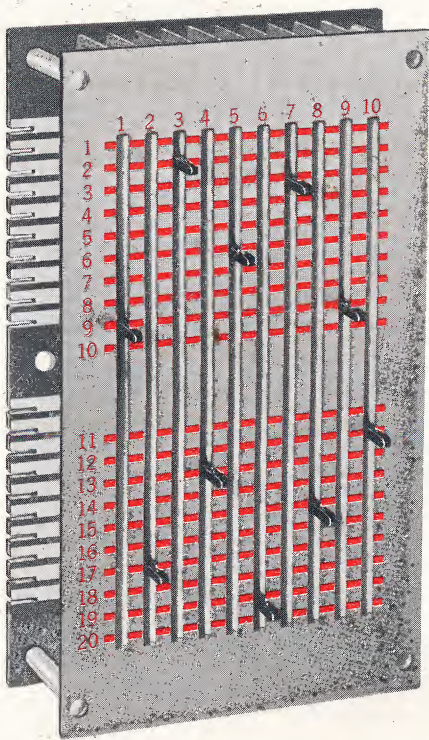
Crossbar-Type Selector Switches

Switch No.	Circuits Measured	Calculated Capacitance Ckt to Ckt	Calculated Capacitance Ckt to Ground	Added Capacitance as Result of Increased Cktry
C10-02A Double Basic Type	Capacitance between Sliders #1 & #2 when set on cross ckts. #1 & #2. Remaining Sliders @ Pos. #20	Pfd (10-12) 13.9	Pfd (10-12) 13.0	Pfd (10-12) —
C10-18A Double Patch-board Type	Capacitance between Sliders #19 & #20 when set on cross ckts. #1 & #2. Remaining Sliders @ Pos. #20	★ 18.2	17.8	4.3
	Capacitance between Sliders #1 & #2 when set on cross ckts. #1 & #2. Remaining Sliders @ Pos. #20	▲ 14.7	—	0.8

★ Longest printed Circuits on rear of board.

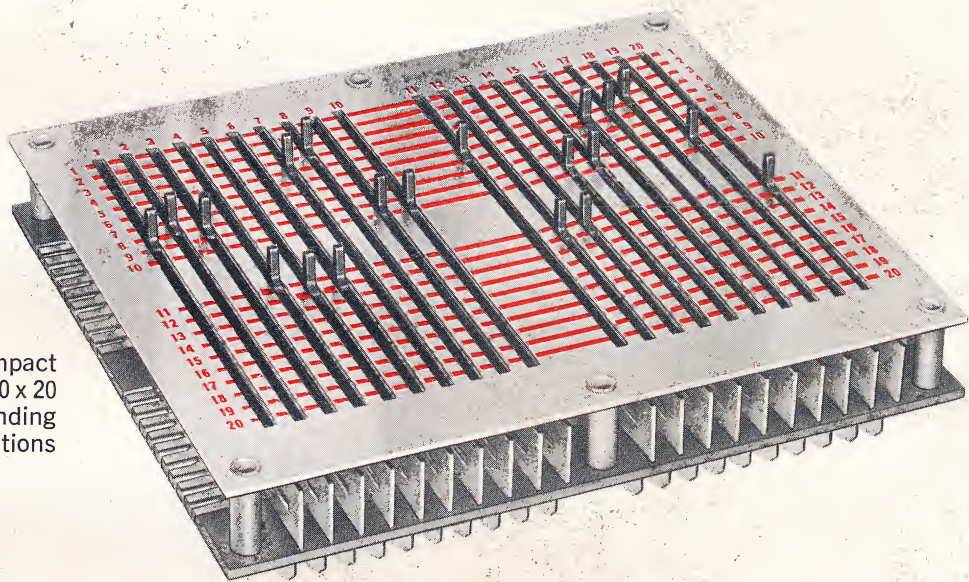
▲ Shortest printed Circuits on rear of board.

BASIC MODULES



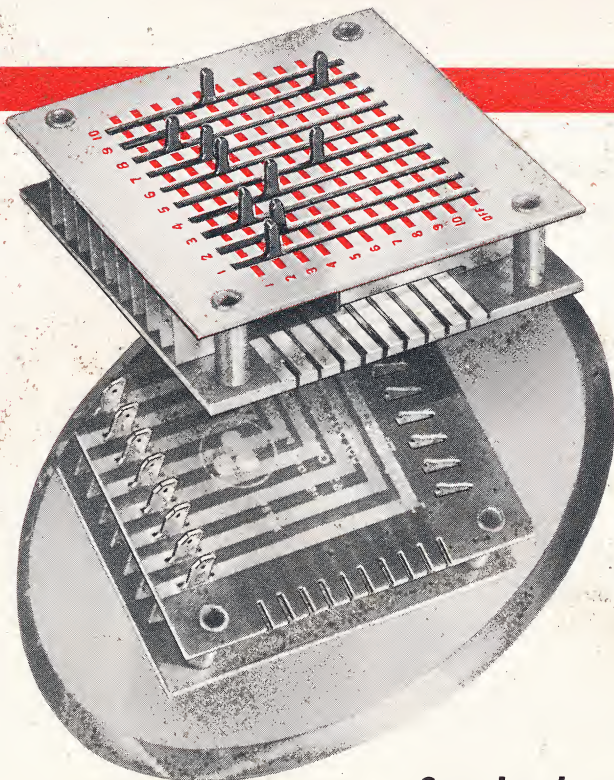
C10-01A Standard Single Type

The basic module offers 200 select stations in the 20x10 arrangement with center off position.



C10-02A Double Type

Two single basic modules combine in a compact package to provide 400 select stations in a 20x20 arrangement with center off position. By expanding to three, four and five modules switching positions of 600, 800 and 1000 are possible.



PATCHBOARD MODULES

C10-19A Miniature Type

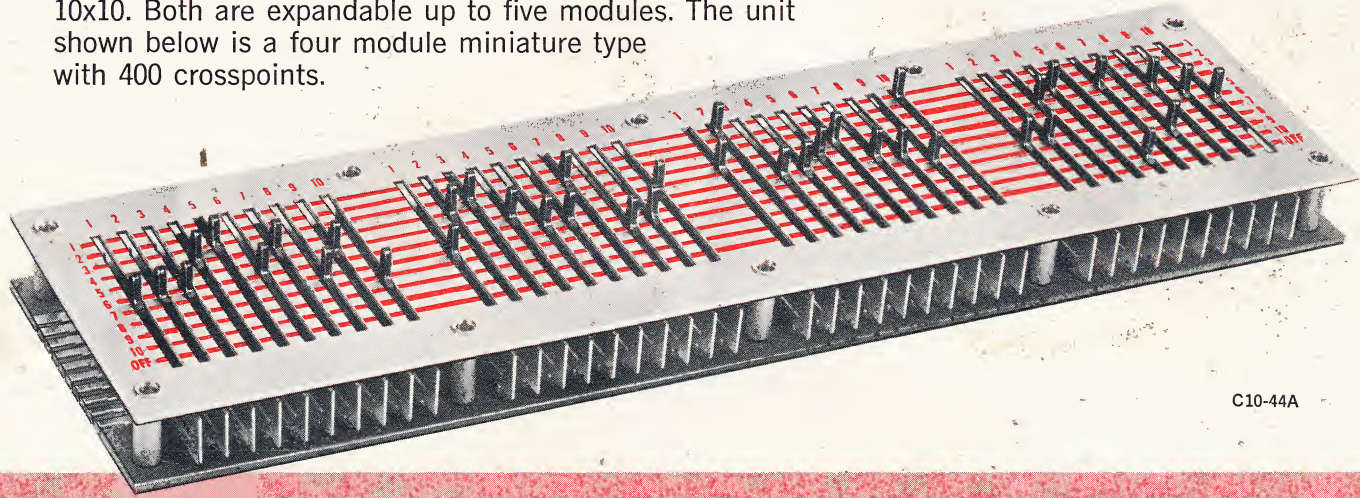
Printed circuit on both surfaces of the circuit board permits complete interconnectability in both the C10-19A miniature 10x10 configuration and the C10-18A double type 20x20 configuration.

See back page for dimensions and ordering information

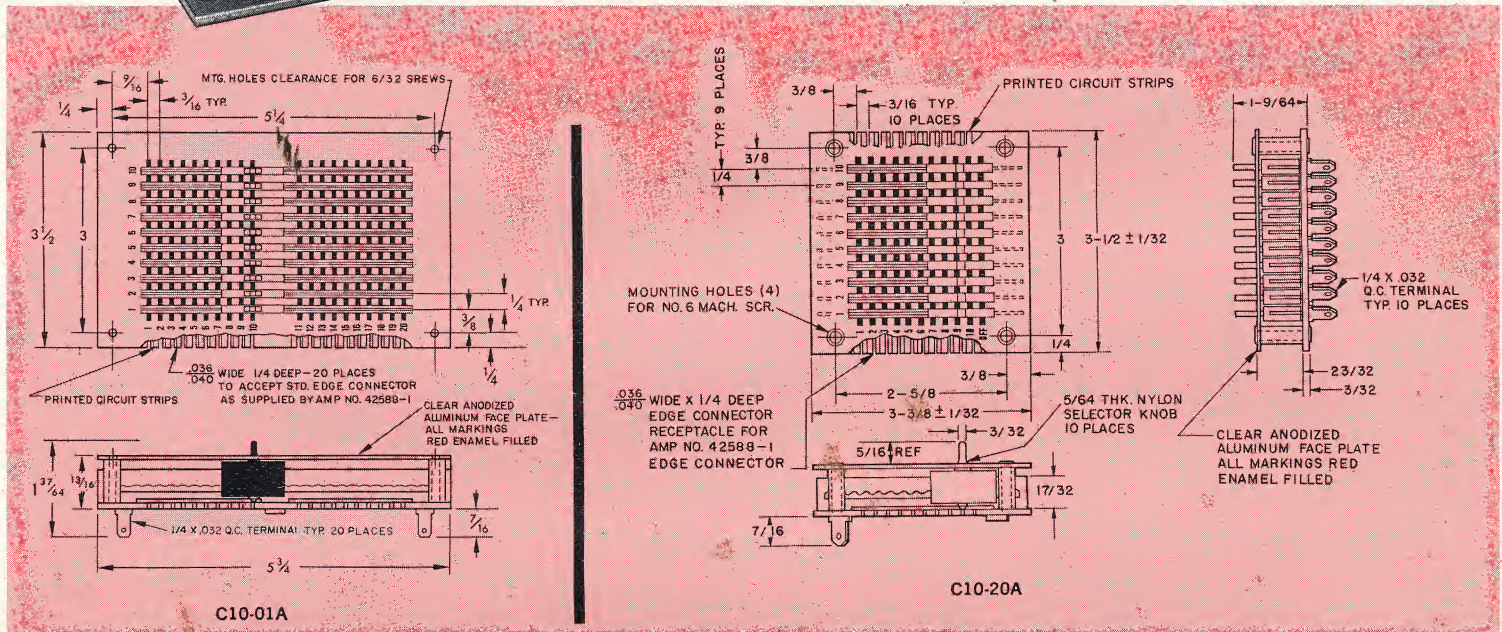
Up to 1000 station selections...

There are two standard modules. The Basic 20x10 and The Miniature 10x10. Both are expandable up to five modules. The unit shown below is a four module miniature type with 400 crosspoints.

ELECTRICAL CAPACITY	
1. Current carrying only, (no make or break)	3 Amp./125 volts A.C. or D.C.
2. Make or break	1 Amp. 15 volts D.C.
	150 m.a./125 volts A.C.



C10-44A



C10-01A

C10-20A

Pat. No. 3,205,319

ORDERING INFORMATION

MODEL NO.	NUMBER OF MODULES	TYPE	NUMBER OF PC STRIPS	NUMBER OF SLIDERS	NUMBER OF CROSSPOINTS	LIST PRICE	DISCOUNT SCHEDULE
C10-01A	1 Module	Basic	20	10	200	\$20.50	
C10-02A	2 Module	Basic	20	20	400	34.50	Quantity Discount List Price 1 to 24 LIST PRICE 25 to 49 25% 50 to 99 27% 100 to 499 37% 500 to 999 43% 1000 to 1999 48% for larger quantities consult factory
C10-03A	3 Module	Basic	20	30	600	46.50	
C10-04A	4 Module	Basic	20	40	800	60.50	
C10-05A	5 Module	Basic	20	50	1000	73.50	
C10-20A	1 Module	Miniature	10	10	100	18.00	
C10-42A	2 Module	Miniature	10	20	200	31.00	
C10-43A	3 Module	Miniature	10	30	300	43.00	
C10-44A	4 Module	Miniature	10	40	400	55.00	
C10-45A	5 Module	Miniature	10	50	500	67.00	
C10-19A	1 Module	Patchboard	10	10	100	21.00	
C10-18A	2 Module	Patchboard	20	20	400	38.00	

Terms: 1/2 % 10th and 25th, net 30 days.

F.O.B. Shipping Point Highland Park, Illinois, U.S.A.

VARIATIONS OF ALL TYPES OF CHERRY CROSSBAR TYPE SELECTOR SWITCHES CAN BE PROVIDED TO MEET SPECIFIC ELECTRICAL AND MECHANICAL REQUIREMENTS

Cherry Electrical Products Corporation



1650 OLD DEERFIELD ROAD
HIGHLAND PARK, ILL. 60036

Phone: 312-432-8182 TWX 910-688-3782



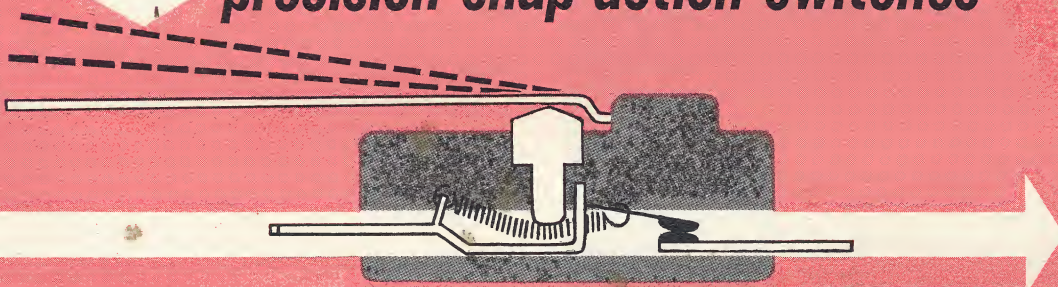
CHERRY ENGINEERING

a concept you can depend on

Coil spring actuated snap action with additional overtravel is a Cherry exclusive feature proven in thousands of products employing over 37 million Cherry switches. Cherry engineering service includes basic design, electrical and mechanical research, and application engineering.

THIS IS CHERRY

precision snap-action switches



CHERRY ELECTRICAL PRODUCTS CORPORATION, HIGHLAND PARK, ILLINOIS



CHERRY MANUFACTURING

specialization that results in quality

An entire company devoted *entirely to one product*—switches.

This specialization means thorough application analysis . . . efficient, reliable assembly of switches . . . automated testing techniques . . . faster service.



CHERRY SNAP ACTION SWITCHES

*insure
the dependability
of your product*

*Snap action begins
with the Cherry spring*

Cherry switches all have a unique feature . . . a stainless steel coil spring . . . precision made to extend and retract, extend and retract, over and over again, with no undue strain at any point. Coil spring construction eliminates the fracture points inherent in stamped blades or flat springs; coil spring switches last far longer, maintain repeatability of operating point, have greater overtravel.

*7 basic switch types
7,000 variations*

Only a few of the basic switches are shown here . . . each can be varied to fit most applications. Existing dies for hundreds of actuator shapes are modifiable to provide a wide choice. Cherry gives you application-engineered switch designs with all the economies of mass production.

Contact the Cherry technical man near you — or send for a catalog of engineering drawings and specifications on the complete Cherry snap-action switch line.

SUBMINIATURE SWITCHES

High overtravel (.040 min.) for easier adaptation to your product. Integral hinged actuators in standard and high lever ratios. Choice of deep well solder, solder, or quick connect terminals.

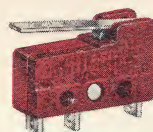
Electrical Rating —

10.1 amps, 125-250 vac. Also light force E61 Series, 5 amps, 125/250 vac.

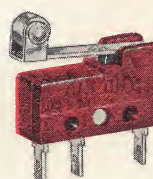
$\frac{25}{32}$ " x $\frac{15}{32}$ " x $\frac{1}{4}$ " switch body.



E62-20A, Basic Switch



E62-10H, Lever Actuator



E62-00K, Roller Actuator

MINIATURE SWITCHES

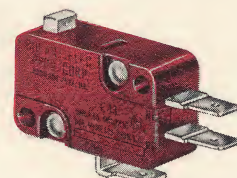
With high overtravel (.050 min.) characteristic of Cherry switches. Integral hinged actuator available in various forms, lengths. Quick connect, screw or solder type terminals.

Electrical Rating —

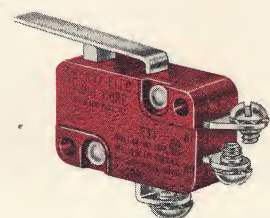
10 amps, $\frac{1}{2}$ H.P., 125-250 vac. Also light force E23 Series, 5 amps, $\frac{1}{4}$ H.P., 125-250 vac. Operating force less than 2 oz. maximum on extended lever version.

For high capacity, specify E34 Series. 15 amps, $\frac{1}{2}$ H.P., 125-250 vac.

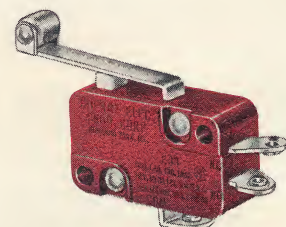
$1\frac{1}{2}$ " x $\frac{5}{8}$ " x $1\frac{1}{2}$ " switch body.



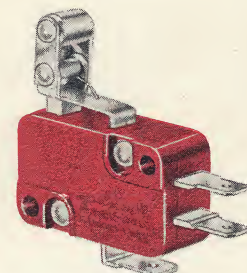
E33-00A, Basic Switch



E33-60H, Extended Lever Actuator



E33-70K, Extended Roller Actuator



E33-00P, One-Way Action

GENERAL PURPOSE SWITCHES

A rugged switch with extra overtravel — from .080 min. (Series E19) to .100 min. (Series E13). Double pole version is actually two switches in one compact case. Combination solder and quick connect terminals.

Electrical Rating —
15 amps., 125-250 vac — $\frac{3}{4}$ H.P.,
125 vac — $1\frac{1}{2}$ H.P., 250 vac.

BASIC

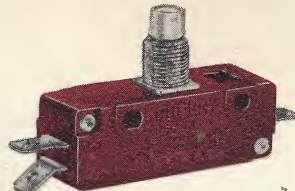
SERIES E13 — $1\frac{1}{16}$ " x $\frac{1}{4}$ " x $\frac{1}{4}$ " switch body.



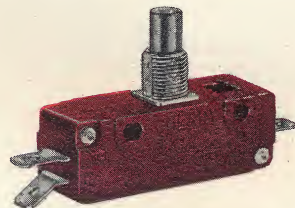
E13-00E, Basic Switch



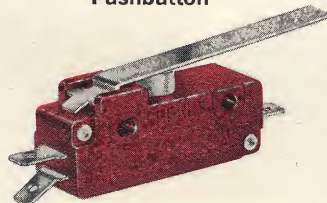
E13-00R, Reset Type



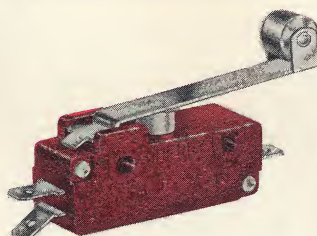
E13-00J, Push Button



E13-00M, Overtravel Pushbutton



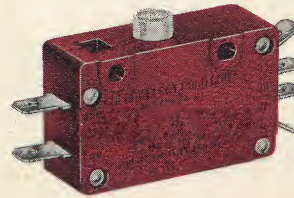
E13-00H, Lever Actuator



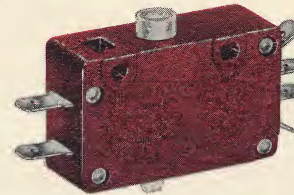
E13-00K, Roller Actuator

DOUBLE POLE

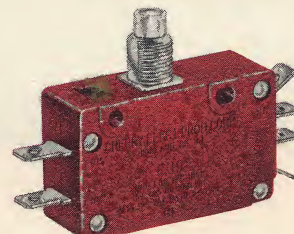
SERIES E19 — $1\frac{1}{16}$ " x $1\frac{1}{8}$ " x $\frac{1}{4}$ " switch body.



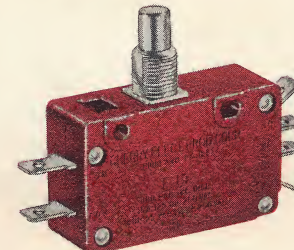
E19-00A, Basic Switch



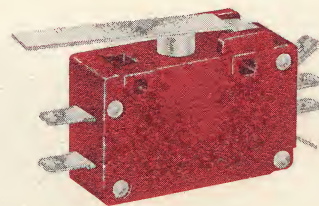
E19-00R, Reset Type



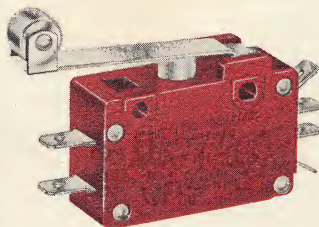
E19-00J, Push Button



E19-00M, Overtravel Pushbutton



E19-00H, Lever Actuator

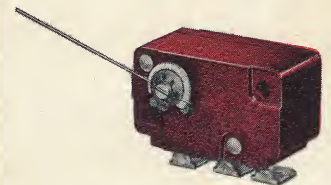


E19-00K, Roller Actuator

FEATHER TOUCH SWITCHES

Operates on forces as light as 4.0 inch grams maximum, clockwise or counter-clockwise. Choice of either Q.C. (.187 x .020) or combination Q.C. and solder (.205 x .032) terminals.

Electrical Rating—5 amps, 250 vac.



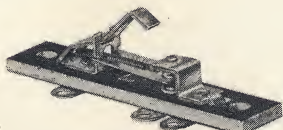
E51-00E-BASIC
 $1\frac{1}{32}$ " x $\frac{1}{16}$ " x $\frac{1}{16}$ " switch body.

OPEN SWITCHES

Open Switches are available with many actuator forms, operating characteristics, forces and panel configurations. Ideal switches for cam follower actuation and for ganging. Three terminals: flat solder; integral solder; quick connect.

Electrical Rating —
10 amps, 125 vac.
5 amps, 250 vac.
 $\frac{1}{3}$ H.P. 125/250 vac.

Also light force S23 Series, 5 amps.
 $\frac{1}{6}$ H.P., 125 vac.



S25-00T, Basic Switch
 $2\frac{1}{8}$ " x $\frac{3}{32}$ " x $\frac{7}{16}$ " switch panel.
Overtravel, from .040 minimum.

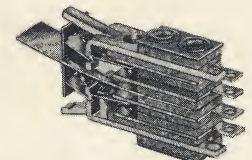


S30-50W, Miniature
 $1\frac{1}{16}$ " x $\frac{3}{32}$ " x $\frac{3}{4}$ " switch panel.
Overtravel, from .040 minimum.

STACK SWITCHES

Both types available in momentary contact or reset action. For eyelet mounting.

Electrical Rating —
All rated at $7\frac{1}{2}$ amps, 125 vac —
5 amps, 250 vac — $\frac{1}{3}$ H.P., 125-250 vac.



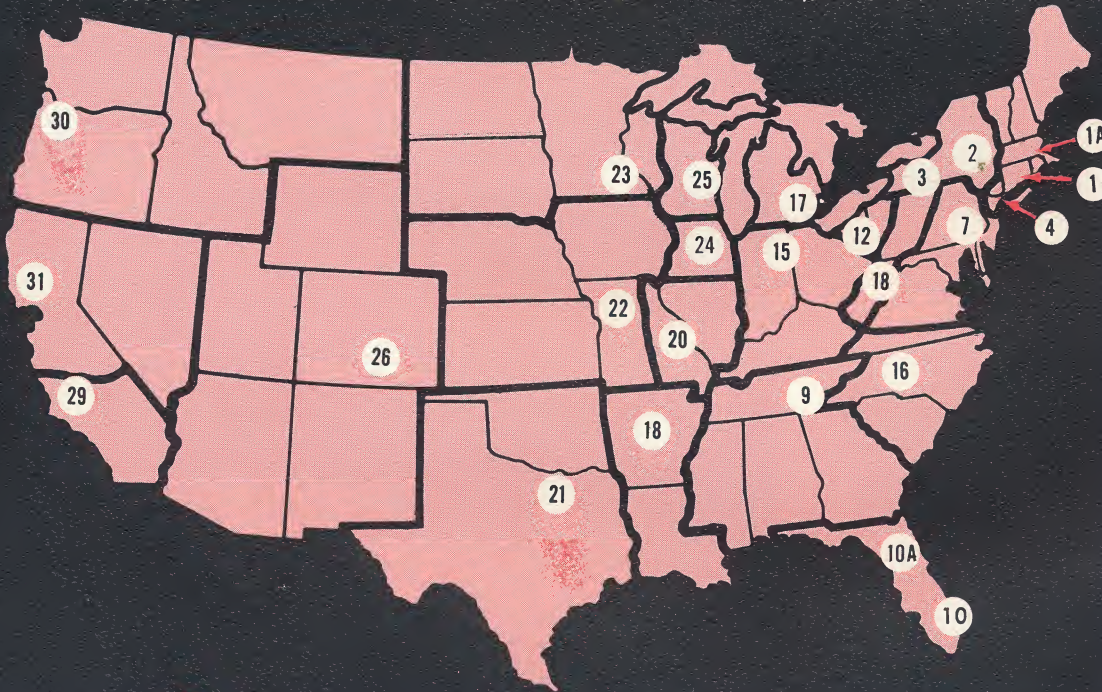
S36-40E, Double Pole
 $\frac{1}{2}$ " x $\frac{5}{16}$ " x $\frac{3}{16}$ " switch stack.



S37-10E, Single Pole
 $\frac{1}{2}$ " x $\frac{3}{16}$ " x $\frac{3}{16}$ " switch stack.

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